| Given number of figures in Period of Primes. | Primes, Prime Factors, &c. |
|---|---|
| 80 | 99999 91000 00000 99999 99100 00000 1. |
| 81 | $3^6$ . 163 . 9397 . 21762 15574 17380 51978 03850 29334 29783 20758 07163 797. |
| 82 | 90909 09090 90909 09090 90909 09090 90909 09091. |
| 83 | Seems prime. |
| 84 | 10099 98990 00099 98990 00101. |
| 85 | 90000 90000 90000 90900 90900 90900 90909 90909 90909 90909 99909 99909 9991. |
| 86 | 90909 09090 90909 09090 90909 09090 90909 09090 91. |
| 87 | 4003 . 22505 64329 00549 81286 55760 43195 08116 66025 25583 29000 997. |
| 88 | 617 . 16205 83484 60129 67584 92708 26564 02106 953. |
| 89 | Seems prime. |
| 90 | 29611 64229 50923 97453 00732 9. |
| 91 | 547 . 14197 . 17837 . 64973 58525 58248 78623 76372 29838 67691 22282 27693 73769 82738 03847 7. |
| 92 | 1289 . 76811 40495 74080 75951 11722 18851 05500 46470 9. |
| 93 | 90090 09009 00900 90090 09009 00900 99099 09909 90990 99099 09909 90991. |
| 94 | 6299 . 14432 30527 21211 15905 84364 04046 81839 83027 609. |
| 95 | 191 . 47120 89005 70681 09952 82727 69638 69115 13141 30942 35654 39842 88481 62827 17801. |
| 96 | 97 . 10309 27835 05154 62886 59793 81443 3. |
| 97 | Seems prime. |
| 98 | 197 . 50761 41624 36553 29949 18781 72639 59390 35533. |
| 99 | 199 . 397 . 12657 74717 41579 43369 23914 28173 61378 68182 22092 83191 77752 74356 67. |
| 100 | 99999 99999 00000 00000 99999 99999 00000 00001. |

*Note.*—In the preparation of this paper valuable assistance was received from the Rev. Prof. Salmon, F.R.S., both in the way of suggestions and otherwise.—W. S.

Houghton-le-Spring,
   April 18, 1874.

III. " On the Number of Figures in the Reciprocal of every Prime between 20,000 and 30,000." By WILLIAM SHANKS. Communicated by the Rev. GEORGE SALMON, F.R.S. Received June 6, 1874.

In a former communication\* I gave the number of figures in the reciprocal of every prime below 20,000 ; the present Table is simply an extension of the former, and has been calculated by the same method. Towards the close of the former Table, viz. opposite the prime 19841, *instead* of 1984 *read* 64. The *whole* of the former Table has kindly been verified by the Rev. Dr. Salmon. For the accuracy of the following Table I am entirely responsible, and believe it is free from error.

* *Suprà*, p. 200.

In the left-hand columns of Table III. are primes; in the right-hand columns, immediately opposite, is the number of figures in the period of the reciprocal of each prime.

## TABLE III. (*continued*).

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 20011 | 6670 | 20611 | 20610 | 21211 | 21210 | 21803 | 10901 | 22409 | 11204 |
| 20021 | 1540 | 20627 | 10313 | 21221 | 4244 | 21817 | 21816 | 22433 | 22432 |
| 20023 | 6674 | 20639 | 10319 | 21227 | 10613 | 21821 | 10910 | 22441 | 11220 |
| 20029 | 6676 | 20641 | 2580 | 21247 | 21246 | 21839 | 10919 | 22447 | 7482 |
| 20047 | 20046 | 20663 | 20662 | 21269 | 21268 | 21841 | 10920 | 22453 | 5613 |
| 20051 | 20050 | 20681 | 470 | 21277 | 1181 | 21851 | 21850 | 22469 | 22468 |
| 20063 | 20062 | 20693 | 739 | 21283 | 3547 | 21859 | 21858 | 22481 | 2810 |
| 20071 | 6690 | 20707 | 1479 | 21313 | 2368 | 21863 | 21862 | 22483 | 3747 |
| 20089 | 5022 | 20717 | 5179 | 21317 | 10658 | 21871 | 405 | 22501 | 7500 |
| 20101 | 20100 | 20719 | 3453 | 21319 | 57 | 21881 | 2188 | 22511 | 11255 |
| 20107 | 3351 | 20731 | 4146 | 21323 | 10661 | 21893 | 10946 | 22531 | 7510 |
| 20113 | 20112 | 20743 | 20742 | 21341 | 4268 | 21911 | 10955 | 22541 | 22540 |
| 20117 | 5029 | 20747 | 10373 | 21347 | 10673 | 21929 | 5482 | 22543 | 7514 |
| 20123 | 10061 | 20749 | 6916 | 21377 | 21376 | 21937 | 21936 | 22549 | 22548 |
| 20129 | 10064 | 20753 | 20752 | 21379 | 3054 | 21943 | 7314 | 22567 | 22566 |
| 20143 | 10071 | 20759 | 10379 | 21383 | 21382 | 21961 | 1220 | 22571 | 4514 |
| 20147 | 1439 | 20771 | 4154 | 21391 | 3565 | 21977 | 21976 | 22573 | 5643 |
| 20149 | 20148 | 20773 | 5193 | 21397 | 1783 | 21991 | 733 | 22613 | 5653 |
| 20161 | 1680 | 20789 | 20788 | 21401 | 25 | 21997 | 1833 | 22619 | 22618 |
| 20173 | 5043 | 20807 | 20806 | 21407 | 21406 | 22003 | 11001 | 22621 | 7540 |
| 20177 | 20176 | 20809 | 10404 | 21419 | 21418 | 22027 | 11013 | 22637 | 11318 |
| 20183 | 20182 | 20849 | 10424 | 21433 | 7144 | 22031 | 11015 | 22639 | 11319 |
| 20201 | 10100 | 20857 | 20856 | 21467 | 10733 | 22037 | 5509 | 22643 | 11321 |
| 20219 | 1838 | 20873 | 20872 | 21481 | 5370 | 22039 | 3673 | 22651 | 1510 |
| 20231 | 10115 | 20879 | 10439 | 21487 | 21486 | 22051 | 22050 | 22669 | 22668 |
| 20233 | 20232 | 20887 | 6962 | 21491 | 4298 | 22063 | 22062 | 22679 | 11339 |
| 20249 | 2531 | 20897 | 20896 | 21493 | 5373 | 22067 | 11033 | 22691 | 22690 |
| 20261 | 20260 | 20899 | 20898 | 21499 | 7166 | 22073 | 22072 | 22697 | 22696 |
| 20269 | 2252 | 20903 | 2986 | 21503 | 21502 | 22079 | 11039 | 22699 | 2522 |
| 20287 | 966 | 20921 | 2615 | 21517 | 5379 | 22091 | 4418 | 22709 | 22708 |
| 20297 | 20296 | 20929 | 436 | 21521 | 2152 | 22093 | 3682 | 22717 | 5679 |
| 20323 | 3387 | 20939 | 20938 | 21523 | 3587 | 22109 | 22108 | 22721 | 11360 |
| 20327 | 20326 | 20947 | 10473 | 21529 | 2691 | 22111 | 11055 | 22727 | 22726 |
| 20333 | 10166 | 20959 | 499 | 21557 | 5389 | 22123 | 3687 | 22739 | 22738 |
| 20341 | 4068 | 20963 | 10481 | 21559 | 10779 | 22129 | 5532 | 22741 | 22740 |
| 20347 | 10173 | 20981 | 4196 | 21563 | 10781 | 22133 | 5533 | 22751 | 11375 |
| 20353 | 20352 | 20983 | 20982 | 21569 | 10784 | 22147 | 11073 | 22769 | 11384 |
| 20357 | 5089 | 21001 | 250 | 21577 | 21576 | 22153 | 22152 | 22777 | 7592 |
| 20359 | 20358 | 21011 | 21010 | 21587 | 10793 | 22157 | 5539 | 22783 | 22782 |
| 20369 | 1273 | 21013 | 5253 | 21589 | 7196 | 22159 | 1231 | 22787 | 11393 |
| 20389 | 6796 | 21017 | 21016 | 21599 | 10799 | 22171 | 7390 | 22807 | 7602 |
| 20393 | 20392 | 21019 | 21018 | 21601 | 3600 | 22189 | 22188 | 22811 | 22810 |
| 20399 | 10199 | 21023 | 21022 | 21611 | 21610 | 22193 | 22192 | 22817 | 22816 |
| 20407 | 20406 | 21031 | 10515 | 21613 | 1801 | 22229 | 22228 | 22853 | 5713 |
| 20411 | 20410 | 21059 | 21058 | 21617 | 21616 | 22247 | 22246 | 22859 | 22858 |
| 20431 | 10215 | 21061 | 4212 | 21647 | 21646 | 22259 | 22258 | 22861 | 22860 |
| 20441 | 10220 | 21067 | 3511 | 21649 | 11 | 22271 | 11135 | 22871 | 11435 |
| 20443 | 3407 | 21089 | 10544 | 21661 | 7220 | 22273 | 22272 | 22877 | 5719 |
| 20477 | 5119 | 21101 | 21100 | 21673 | 21672 | 22277 | 5569 | 22901 | 22900 |
| 20479 | 10239 | 21107 | 10553 | 21683 | 10841 | 22279 | 3713 | 22907 | 11453 |
| 20483 | 10241 | 21121 | 10560 | 21701 | 21700 | 22283 | 11141 | 22921 | 3820 |
| 20507 | 10253 | 21139 | 7046 | 21713 | 21712 | 22291 | 22290 | 22937 | 22936 |
| 20509 | 20508 | 21143 | 21142 | 21727 | 21726 | 22303 | 22302 | 22943 | 22942 |
| 20521 | 1140 | 21149 | 21148 | 21737 | 21736 | 22307 | 11153 | 22961 | 5740 |
| 20533 | 10266 | 21157 | 5289 | 21739 | 7246 | 22343 | 11171 | 22973 | 11486 |
| 20543 | 20542 | 21163 | 3527 | 21751 | 375 | 22349 | 22348 | 22993 | 22992 |
| 20549 | 20548 | 21169 | 1323 | 21757 | 10878 | 22367 | 22366 | 23003 | 11501 |
| 20551 | 10275 | 21179 | 21178 | 21767 | 21766 | 22369 | 11184 | 23011 | 23010 |
| 20563 | 10281 | 21187 | 1177 | 21773 | 10886 | 22381 | 22380 | 23017 | 23016 |
| 20593 | 1872 | 21191 | 2119 | 21787 | 3631 | 22391 | 11195 | 23021 | 23020 |
| 20599 | 10299 | 21193 | 7064 | 21799 | 10899 | 22397 | 5599 | 23027 | 11513 |

TABLE III. (*continued*).

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 23029 | 23028 | 23669 | 23668 | 24229 | 24228 | 24971 | 24970 | 25621 | 25620 |
| 23039 | 11519 | 23671 | 11835 | 24239 | 12119 | 24977 | 24976 | 25633 | 25632 |
| 23041 | 5760 | 23677 | 11838 | 24247 | 24246 | 24979 | 8326 | 25639 | 4273 |
| 23053 | 1921 | 23687 | 23686 | 24251 | 24250 | 24989 | 24988 | 25643 | 12821 |
| 23057 | 2096 | 23689 | 3948 | 24281 | 2428 | 25013 | 6253 | 25657 | 25656 |
| 23059 | 23058 | 23719 | 11859 | 24317 | 12158 | 25031 | 12515 | 25667 | 25666 |
| 23063 | 23062 | 23741 | 23740 | 24329 | 12164 | 25033 | 1192 | 25673 | 25672 |
| 23071 | 11535 | 23743 | 23742 | 24337 | 24336 | 25037 | 12518 | 25679 | 12839 |
| 23081 | 11540 | 23747 | 11873 | 24359 | 12179 | 25057 | 25056 | 25693 | 6423 |
| 23087 | 23086 | 23753 | 23752 | 24371 | 24370 | 25073 | 25072 | 25703 | 25702 |
| 23099 | 23098 | 23761 | 11880 | 24373 | 4062 | 25087 | 25086 | 25717 | 2143 |
| 23117 | 5779 | 23767 | 23766 | 24379 | 8126 | 25097 | 25096 | 25733 | 12866 |
| 23131 | 23130 | 23773 | 5943 | 24391 | 1355 | 25111 | 12555 | 25741 | 2340 |
| 23143 | 23142 | 23789 | 23788 | 24407 | 24406 | 25117 | 6279 | 25747 | 4291 |
| 23159 | 11579 | 23801 | 2975 | 24413 | 6103 | 25121 | 12560 | 25759 | 25758 |
| 23167 | 7722 | 23813 | 5953 | 24419 | 24418 | 25127 | 1478 | 25763 | 12881 |
| 23173 | 11586 | 23819 | 23818 | 24421 | 1628 | 25147 | 4191 | 25771 | 1718 |
| 23189 | 2108 | 23827 | 11913 | 24439 | 12219 | 25153 | 25152 | 25793 | 25792 |
| 23197 | 1933 | 23831 | 11915 | 24443 | 24442 | 25163 | 12581 | 25799 | 12899 |
| 23201 | 464 | 23833 | 23832 | 24469 | 8156 | 25169 | 242 | 25801 | 2580 |
| 23203 | 11601 | 23857 | 7952 | 24473 | 24472 | 25171 | 5034 | 25819 | 1986 |
| 23209 | 5802 | 23869 | 23868 | 24481 | 6120 | 25183 | 25182 | 25841 | 2584 |
| 23227 | 11613 | 23873 | 23872 | 24499 | 24498 | 25189 | 8396 | 25847 | 25846 |
| 23251 | 4650 | 23879 | 11939 | 24509 | 24508 | 25219 | 8406 | 25849 | 718 |
| 23269 | 23268 | 23887 | 23886 | 24517 | 12258 | 25229 | 25228 | 25867 | 12933 |
| 23279 | 11639 | 23893 | 11946 | 24527 | 24526 | 25237 | 6309 | 25873 | 25872 |
| 23291 | 23290 | 23899 | 23898 | 24533 | 12266 | 25243 | 4207 | 25889 | 1618 |
| 23293 | 5823 | 23909 | 23908 | 24547 | 12273 | 25247 | 25246 | 25903 | 25902 |
| 23297 | 23296 | 23911 | 797 | 24551 | 2455 | 25253 | 12626 | 25913 | 25912 |
| 23311 | 63 | 23917 | 5979 | 24571 | 1638 | 25261 | 8420 | 25919 | 12959 |
| 23321 | 11660 | 23929 | 5982 | 24593 | 24592 | 25301 | 25300 | 25931 | 5186 |
| 23327 | 23326 | 23957 | 11978 | 24611 | 4922 | 25303 | 25302 | 25933 | 6483 |
| 23333 | 11666 | 23971 | 23970 | 24623 | 24622 | 25307 | 12653 | 25939 | 25938 |
| 23339 | 23338 | 23977 | 23976 | 24631 | 12315 | 25309 | 8436 | 25943 | 25942 |
| 23357 | 11678 | 23981 | 23980 | 24659 | 24658 | 25321 | 6330 | 25951 | 12975 |
| 23369 | 11684 | 23993 | 23992 | 24671 | 12335 | 25339 | 8446 | 25969 | 12984 |
| 23371 | 23370 | 24001 | 1000 | 24677 | 12338 | 25343 | 25342 | 25981 | 8660 |
| 23399 | 11699 | 24007 | 8002 | 24683 | 12341 | 25349 | 25348 | 25997 | 6499 |
| 23417 | 23416 | 24019 | 24018 | 24691 | 24690 | 25357 | 2113 | 26003 | 13001 |
| 23431 | 11715 | 24023 | 24022 | 24697 | 24696 | 25367 | 25366 | 26017 | 8672 |
| 23447 | 1234 | 24029 | 24028 | 24709 | 24708 | 25373 | 6343 | 26021 | 5204 |
| 23459 | 23458 | 24043 | 12021 | 24733 | 6183 | 25391 | 2539 | 26029 | 26028 |
| 23473 | 23472 | 24049 | 12024 | 24749 | 24748 | 25409 | 12704 | 26041 | 3255 |
| 23497 | 23496 | 24061 | 24060 | 24763 | 12381 | 25411 | 25410 | 26053 | 2171 |
| 23509 | 23508 | 24071 | 12035 | 24767 | 24766 | 25423 | 25422 | 26083 | 1449 |
| 23531 | 23530 | 24077 | 6019 | 24781 | 24780 | 25439 | 12719 | 26099 | 26098 |
| 23537 | 23536 | 24083 | 12041 | 24793 | 8264 | 25447 | 25446 | 26107 | 4351 |
| 23539 | 23538 | 24091 | 2190 | 24799 | 12399 | 25453 | 4242 | 26111 | 13055 |
| 23549 | 3364 | 24097 | 8032 | 24809 | 3101 | 25457 | 25456 | 26113 | 26112 |
| 23557 | 5889 | 24103 | 2678 | 24821 | 24820 | 25463 | 25462 | 26119 | 13059 |
| 23561 | 1178 | 24107 | 12053 | 24841 | 12420 | 25469 | 25468 | 26141 | 26140 |
| 23563 | 11781 | 24109 | 8036 | 24847 | 24846 | 25471 | 12735 | 26153 | 3736 |
| 23567 | 23566 | 24113 | 24112 | 24851 | 4970 | 25523 | 12761 | 26161 | 2616 |
| 23581 | 23580 | 24121 | 4020 | 24859 | 24858 | 25537 | 25536 | 26171 | 26170 |
| 23593 | 23592 | 24133 | 2011 | 24877 | 12438 | 25541 | 25540 | 26177 | 26176 |
| 23599 | 874 | 24137 | 24136 | 24889 | 3111 | 25561 | 6390 | 26183 | 2014 |
| 23603 | 11801 | 24151 | 12075 | 24907 | 12453 | 25577 | 25576 | 26189 | 26188 |
| 23609 | 11804 | 24169 | 3021 | 24917 | 12458 | 25579 | 8526 | 26203 | 13101 |
| 23623 | 7874 | 24179 | 154 | 24919 | 12459 | 25583 | 25582 | 26209 | 13104 |
| 23627 | 11813 | 24181 | 4836 | 24923 | 12461 | 25589 | 25588 | 26227 | 1457 |
| 23629 | 7876 | 24197 | 12098 | 24943 | 8314 | 25601 | 25 | 26237 | 6559 |
| 23633 | 23632 | 24203 | 12101 | 24953 | 24952 | 25603 | 4267 | 26249 | 6562 |
| 23663 | 23662 | 24223 | 24222 | 24967 | 24966 | 25609 | 6402 | 26251 | 26250 |

## TABLE III. (*continued*).

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 26261 | 26260 | 26881 | 3360 | 27583 | 27582 | 28211 | 5642 | 28813 | 2058 |
| 26263 | 2918 | 26891 | 26890 | 27611 | 27610 | 28219 | 28218 | 28817 | 28816 |
| 26267 | 13133 | 26893 | 6723 | 27617 | 27616 | 28229 | 28228 | 28837 | 1602 |
| 26293 | 2191 | 26903 | 26902 | 27631 | 4605 | 28277 | 14138 | 28843 | 14421 |
| 26297 | 26296 | 26921 | 3365 | 27647 | 27646 | 28279 | 14139 | 28859 | 28858 |
| 26309 | 26308 | 26927 | 26926 | 27653 | 6913 | 28283 | 14141 | 28867 | 4811 |
| 26317 | 1462 | 26947 | 13473 | 27673 | 9224 | 28289 | 14144 | 28871 | 14435 |
| 26321 | 13160 | 26951 | 13475 | 27689 | 13844 | 28297 | 28296 | 28879 | 14439 |
| 26339 | 2026 | 26953 | 26952 | 27691 | 9230 | 28307 | 14153 | 28901 | 5780 |
| 26347 | 4391 | 26959 | 13479 | 27697 | 27696 | 28309 | 28308 | 28909 | 28908 |
| 26357 | 6589 | 26981 | 26980 | 27701 | 27700 | 28319 | 14159 | 28921 | 7230 |
| 26371 | 26370 | 26987 | 13493 | 27733 | 4622 | 28349 | 28348 | 28927 | 3214 |
| 26387 | 13193 | 26993 | 26992 | 27737 | 27736 | 28351 | 14175 | 28933 | 14466 |
| 26393 | 26392 | 27011 | 27010 | 27739 | 13869 | 28387 | 14193 | 28961 | 14480 |
| 26399 | 13199 | 27017 | 27016 | 27743 | 27742 | 28393 | 1352 | 28979 | 28978 |
| 26407 | 26406 | 27031 | 4505 | 27749 | 27748 | 28403 | 14201 | 29009 | 14504 |
| 26417 | 26416 | 27043 | 13521 | 27751 | 925 | 28409 | 7102 | 29017 | 29016 |
| 26423 | 26422 | 27059 | 27058 | 27763 | 13881 | 28411 | 28410 | 29021 | 29020 |
| 26431 | 2643 | 27061 | 27060 | 27767 | 27766 | 28429 | 28428 | 29023 | 29022 |
| 26437 | 6609 | 27067 | 347 | 27773 | 6943 | 28433 | 28432 | 29027 | 14513 |
| 26449 | 1653 | 27073 | 27072 | 27779 | 27778 | 28439 | 14219 | 29033 | 29032 |
| 26459 | 26458 | 27077 | 6769 | 27791 | 13895 | 28447 | 9482 | 29059 | 9686 |
| 26479 | 4413 | 27091 | 9030 | 27793 | 27792 | 28463 | 214 | 29063 | 29062 |
| 26489 | 1892 | 27103 | 27102 | 27799 | 13899 | 28477 | 14238 | 29077 | 7269 |
| 26497 | 26496 | 27107 | 13553 | 27803 | 13901 | 28493 | 7123 | 29101 | 29100 |
| 26501 | 26500 | 27109 | 9036 | 27809 | 6952 | 28499 | 28498 | 29123 | 14561 |
| 26513 | 26512 | 27127 | 27126 | 27817 | 456 | 28513 | 28512 | 29129 | 7282 |
| 26539 | 26538 | 27143 | 27142 | 27823 | 27822 | 28517 | 14258 | 29131 | 29130 |
| 26557 | 6639 | 27179 | 27178 | 27827 | 13913 | 28537 | 28536 | 29137 | 9712 |
| 26561 | 6640 | 27191 | 13595 | 27847 | 27846 | 28541 | 5708 | 29147 | 14573 |
| 26573 | 13286 | 27197 | 6799 | 27851 | 27850 | 28547 | 14273 | 29153 | 29152 |
| 26591 | 2659 | 27211 | 27210 | 27883 | 13941 | 28549 | 28548 | 29167 | 29166 |
| 26597 | 13298 | 27239 | 13619 | 27893 | 6973 | 28559 | 14279 | 29173 | 7293 |
| 26627 | 13313 | 27241 | 3405 | 27901 | 27900 | 28571 | 28570 | 29179 | 9726 |
| 26633 | 26632 | 27253 | 13626 | 27917 | 6979 | 28573 | 14286 | 29191 | 973 |
| 26641 | 13320 | 27259 | 3894 | 27919 | 13959 | 28579 | 28578 | 29201 | 1825 |
| 26647 | 8882 | 27271 | 4545 | 27941 | 5588 | 28591 | 2859 | 29207 | 29206 |
| 26669 | 26668 | 27277 | 2273 | 27943 | 27942 | 28597 | 14298 | 29209 | 14604 |
| 26681 | 1334 | 27281 | 6820 | 27947 | 13973 | 28603 | 14301 | 29221 | 29220 |
| 26683 | 4447 | 27283 | 13641 | 27953 | 27952 | 28607 | 28606 | 29231 | 2923 |
| 26687 | 26686 | 27299 | 27298 | 27961 | 20 | 28619 | 28618 | 29251 | 5850 |
| 26693 | 6673 | 27329 | 13664 | 27967 | 27966 | 28621 | 3180 | 29269 | 9756 |
| 26699 | 26698 | 27337 | 27336 | 27983 | 27982 | 28627 | 4771 | 29287 | 29286 |
| 26701 | 8900 | 27361 | 6840 | 27997 | 6999 | 28631 | 14315 | 29297 | 29296 |
| 26711 | 2671 | 27367 | 27366 | 28001 | 3500 | 28643 | 14321 | 29303 | 2254 |
| 26713 | 26712 | 27397 | 2283 | 28019 | 28018 | 28649 | 7162 | 29311 | 14655 |
| 26717 | 6679 | 27407 | 27406 | 28027 | 4671 | 28657 | 28656 | 29327 | 29326 |
| 26723 | 13361 | 27409 | 13704 | 28031 | 2803 | 28661 | 28660 | 29333 | 7333 |
| 26729 | 3341 | 27427 | 27426 | 28051 | 9350 | 28663 | 4777 | 29339 | 29338 |
| 26731 | 26730 | 27431 | 13715 | 28057 | 28056 | 28669 | 28668 | 29347 | 4891 |
| 26737 | 26736 | 27437 | $6859=19^3$ | 28069 | 28068 | 28687 | 14343 | 29363 | 14681 |
| 26759 | 787 | 27449 | 6862 | 28081 | 1755 | 28697 | 28696 | 29383 | 29382 |
| 26777 | 26776 | 27457 | 9152 | 28087 | 9362 | 28703 | 28702 | 29389 | 29388 |
| 26783 | 26782 | 27479 | 13739 | 28097 | 28096 | 28711 | 14355 | 29399 | 14699 |
| 26801 | 3350 | 27481 | 4580 | 28099 | 9366 | 28723 | 4787 | 29401 | 4900 |
| 26813 | 13406 | 27487 | 27486 | 28109 | 28108 | 28729 | 14364 | 29411 | 5882 |
| 26821 | 8940 | 27509 | 27508 | 28111 | 937 | 28751 | 1150 | 29423 | 29422 |
| 26833 | 8944 | 27527 | 27526 | 28123 | 4687 | 28753 | 28752 | 29429 | 29428 |
| 26839 | 4473 | 27529 | 3441 | 28151 | 2815 | 28759 | 14379 | 29437 | 2453 |
| 26849 | 6712 | 27539 | 3934 | 28163 | 14081 | 28771 | 1370 | 29443 | 29442 |
| 26861 | 340 | 27541 | 1620 | 28181 | 5636 | 28789 | 9596 | 29453 | 199 |
| 26863 | 26862 | 27551 | 13775 | 28183 | 28182 | 28793 | 28792 | 29473 | 29472 |
| 26879 | 13439 | 27581 | 788 | 28201 | 7050 | 28807 | 9602 | 29483 | 14741 |

TABLE III. (*continued*).

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 29501 | 29500 | 29599 | 14799 | 29717 | 14858 | 29819 | 29818 | 29881 | 2988 |
| 29527 | 777 | 29611 | 90 | 29723 | 14861 | 29833 | 9944 | 29917 | 7479 |
| 29531 | 29530 | 29629 | 3292 | 29741 | 29740 | 29837 | 7459 | 29921 | 1496 |
| 29537 | 29536 | 29633 | 29632 | 29753 | 29752 | 29851 | 5970 | 29927 | 29926 |
| 29567 | 29566 | 29641 | 14820 | 29759 | 14879 | 29863 | 29862 | 29947 | 2139 |
| 29569 | 2464 | 29663 | 29662 | 29761 | 4960 | 29867 | 14933 | 29959 | 14979 |
| 29573 | 7393 | 29669 | 29668 | 29789 | 29788 | 29873 | 29872 | 29983 | 9994 |
| 29581 | 29580 | 29671 | 14835 | 29803 | 4967 | 29879 | 14939 | 29989 | 29988 |
| 29587 | 14793 | 29683 | 1649 | | | | | | |

IV. " Research on the Smallpox of Sheep." By E. KLEIN, M.D., Assistant Professor at the Laboratory of the Brown Institution, London. Communicated by JOHN SIMON, F.R.S., D.C.L., Medical Officer of the Privy Council, &c. Received June 11, 1874.

Variola ovina, or smallpox of sheep, is a disease which, although it is not communicable to man, and possesses a specific contagium of its own, very closely resembles human smallpox, both as regards the development of the morbid process and the anatomical lesions which accompany it. This correspondence is so complete, that it cannot be doubted that the pathogeny of the two diseases is the same. The present investigation was therefore undertaken in the confidence that the application of the experimental method to the investigation of the ovine disease would not only yield results of value, as contributory to our knowledge of the infective process in general, but would throw special light on the pathology of smallpox.

The paper consists of four sections. In the first, the author gives an account of his experimental method, which consisted in communicating the disease by inoculation to a sufficient number of sheep, and in investigating anatomically (1) the pustules produced at the seat of inoculation, and (2) those constituting the general eruption. The lymph employed was obtained by the kindness of Prof. Chauveau, of Lyons, and Prof. Cohn, of Breslau.

In the second section, the organisms contained in fresh lymph, and the organic forms derived from them by cultivation, are described. The author finds that fresh lymph contains spheroidal bodies of extreme minuteness, which correspond to the micrococcus of Hallier and to the spheroids described by Cohn and Sanderson in vaccine lymph. It also contains other forms, not previously described, which in their development are in organic continuity with the micrococci.

The third section contains a complete anatomical description of the skin